

MHI
Copy 3

FM 17-57

WAR DEPARTMENT

**ARMORED FORCE FIELD
MANUAL**



**SUPPLY BATTALION
ARMORED DIVISION**

October 14, 1942

ARMORED FORCE FIELD MANUAL



SUPPLY BATTALION, ARMORED DIVISION



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1942

WAR DEPARTMENT,
WASHINGTON, October 14, 1942.

FM 17-57, Supply Battalion, Armored Division, is published for the information and guidance of all concerned.

[A. G. 062.11 (9-21-42).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:

D (10) ; Bn and H 17 (3) ; IBn 10 (5) ; IC 10 (5) .
(For explanation of symbols see FM 21-6.)

TABLE OF CONTENTS

	Paragraphs	Page
SECTION I. General-----	1-8	1
II. Training-----	9-19	8
III. Control, orders, liaison, and reconnais- sance-----	20-24	11
IV. Marches and bivouacs-----	25-30	13
V. Security-----	31-35	22
INDEX-----		31

ARMORED FORCE FIELD MANUAL**SUPPLY BATTALION, ARMORED DIVISION****SECTION I****GENERAL**

■ 1. **SCOPE.**—This manual covers the technique of operation of the supply battalion, armored division. (See FM 17-50.)

■ 2. **PURPOSE.**—This manual is a guide only to the employment of the supply battalion. The formations, actions, disposition, and use described herein are not inflexible. Each tactical situation presents a different problem involving employment of the supply battalion in delivery of its supply load to meet the needs of combat units.

■ 3. **ORGANIZATION.**—The supply battalion consists of a headquarters and headquarters company (T/O 10-36), two truck companies (T/O 10-37), and a medical detachment (T/O 10-35). The battalion headquarters is the administrative unit which controls operation of the battalion. The headquarters company is the general service unit of the battalion; it furnishes second echelon maintenance and provides for routine administration and messing of the battalion headquarters, the division quartermaster platoon, the service platoon, and the division ammunition section. The truck companies provide means for transporting the organic load carried by the supply battalion. The medical detachment provides medical service for the battalion.

a. Battalion headquarters.—Battalion headquarters consists of a headquarters section and a personnel section.

(1) The headquarters section consists of battalion commander, executive and operations officer (S-2 and S-3), adjutant (S-1), supply officer (S-4), one warrant officer assistant adjutant, and fifteen enlisted men. In addition to individual weapons, this section is equipped with vehicular machine guns and one 37-mm antitank gun towed by a half-track. It is equipped with one SCR 506 radio set for communication in the division train radio net, one SCR 510 set, and one SCR 528 set for communication within the battalion. It may be furnished an additional SCR 506 set by the train headquarters company.

(2) The personnel section consists of one lieutenant normally used as liaison agent with train headquarters and seven enlisted men. This section is provided with one truck, 2½-ton, 6 x 6, for personnel and equipment.

b. Headquarters company.—The headquarters company consists of company headquarters, service platoon, division quartermaster platoon, and division ammunition section.

(1) The company headquarters consists of—

(a) Command section, consisting of company commander, bugler, and chauffeur transported in one truck, ¾-ton command, equipped with one SCR 510 set.

(b) Maintenance section, consisting of one lieutenant and seventeen enlisted men, who provide the second echelon maintenance for the entire battalion, are transported in three trucks, 2½-ton, including one maintenance wrecker and two tools and parts, one heavy wrecker. They have one self-propelled 37-mm antitank gun.

(c) Administrative, supply, and mess section, consisting of the first sergeant, one staff sergeant, mess, and fourteen technicians. They have one self-propelled 37-mm antitank gun in addition to individual arms.

(2) The service platoon consists of one lieutenant, one platoon staff sergeant, three section foreman sergeants, three assistant section foreman corporals, and forty-seven technicians. They have one self-propelled 37-mm antitank gun. This platoon provides the labor to the division quartermaster for division ration and supply break-down, and labor for the division ordnance officer for handling the ammunition load of the supply battalion in its distribution within the division. Personnel of this platoon while performing these functions are directly under the control of the respective division special staff officer. Other details must not interfere with these functions. See FM 17-50 for use of this platoon on division duties.

(3) (a) The division quartermaster platoon consists of four officers and twenty-two enlisted men. It is organized into four sections: subsistence, transportation, fuel and lubrication, and supply. One truck, ¾-ton, is assigned to each one of these sections and one truck, 2½-ton, is assigned to the subsistence section for transporting personnel and office

TRANSPORTATION SECTION



1 LIEUTENANT
1 MR SERGEANT
1 STAFF SERGEANT
2 TECHNICIANS
1 CHAUFFEUR
1 CLERK

SUPPLY SECTION



1 LIEUTENANT
1 TECH SERGEANT
1 STAFF SERGEANT
4 TECHNICIANS
(1) CHAUFFEUR
(3) CLERKS

SUBSISTENCE SECTION



1 CAPTAIN
1 MR SERGEANT
1 STAFF SERGEANT
6 TECHNICIANS
(2) BUTCHERS
(2) CHAUFFEURS

FUEL AND LUBRICANTS SECTION



1 LIEUTENANT
1 MR SERGEANT
1 STAFF SERGEANT
2 TECHNICIANS
(1) CHAUFFEUR
(1) CLERK

FIGURE 1.—Division quartermaster platoon.

equipment of the platoon and also to be used as the supply battalion ration truck.

(b) For a suggested organization of the division quartermaster platoon, see figure 1. Actually, office organization will vary greatly under different supply loads and adjustments between sections should be made as required.

(c) The division quartermaster platoon functions under control of the quartermaster but is administered, rationed, and trained in basic military subjects by the supply battalion commander as directed by the division commander. See FM 17-50 for general scheme of using this platoon.

(4) The division ammunition section consists of one officer and six enlisted men and operates the division ammunition control point under the direct control of the division ordnance officer. Its relationship to the supply battalion is similar to that of the division quartermaster platoon. For details of functions see FM 17-50.

(5) The personnel of the division quartermaster platoon, service platoon, and division ammunition section in the field should be attached for rations to a unit nearest to the point where they can best perform their supply functions.

c. *Truck companies.*—The two truck companies are identical in organization and consist of a company headquarters and two truck platoons.

(1) The company headquarters is organized into—

(a) A command and administrative section, consisting of the company commander, first sergeant, two corporals, and two technicians transported in one truck, $\frac{3}{4}$ -ton, carry-all, and one self-propelled 37-mm antitank gun, armed with three carbines, one submachine gun, and two pistols, and equipped with one SCR 528 radio set.

(b) A maintenance section, consisting of nine enlisted men who provide company maintenance to supplement the first echelon driver maintenance, are transported in two trucks $\frac{1}{4}$ -ton, and one truck, $2\frac{1}{2}$ -ton, maintenance wrecker, and are armed with carbines, submachine guns, and pistols.

(c) A supply and mess section, consisting of one mess sergeant (staff), one supply sergeant, and ten technicians including one armorer, two chauffeurs, three cooks, two cooks' helpers, one driver of self-propelled gun, and one basic, are transported in two trucks, $2\frac{1}{2}$ -ton, including one equipment

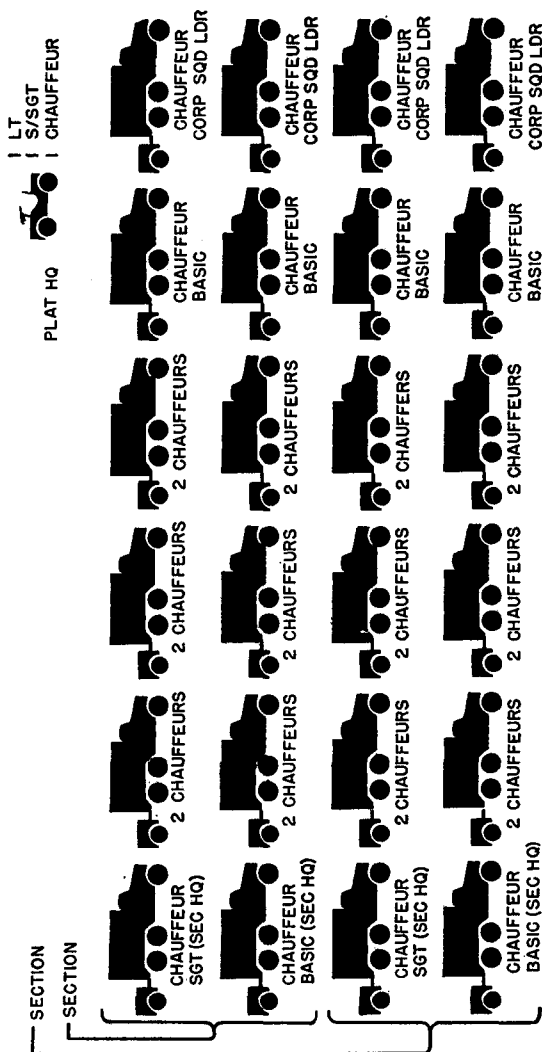


FIGURE 2.—Truck platoon.

and one kitchen, and one self-propelled 37-mm antitank gun and are armed with carbines and one submachine gun.

(2) The truck platoon is organized as shown in figure 2.

■ 4. CARGO CAPACITY.—Each truck company is provided with 48 trucks, 2½-ton, 6 x 6, with a capacity of 120 tons, and 48 trailers, 1-ton, 2-wheel, with a capacity of 48 tons. The total cargo capacity of each truck company is 168 tons and the total cargo capacity of the supply battalion is 336 tons. In this cargo capacity there is not included any of the vehicles assigned organic loads of personnel, equipment, or supplies of the battalion.

■ 5. NORMAL LOAD.—The normal load of the supply battalion is 336 tons of ammunition. The principal use of this battalion is the delivery of this load to unit trains, combat vehicles, or designated dumps and replenishment of the load from ammunition supply points. (See FM 17-50 and 9-5.) There will be occasions, however, when the division commander will require dumping of the ammunition load and transporting other supplies. The supply battalion will, especially when the armored division is operating on independent missions or distant from established army supply points, be augmented by the attachment of additional truck companies and service organizations. When such organizations are attached, they operate in general as outlined for the truck companies of the battalion.

■ 6. ABNORMAL LOADS.—At the discretion of the division commander, the normal load of ammunition may be dumped and the vehicles made available for transportation of other supplies. It will take approximately 403 man-hours of labor to unload 336 tons of ammunition at one site and 448 hours to reload it, making a total of 851 man-hours that are consumed when use, other than normal, is to be made of the cargo vehicles. A man can ordinarily move about 7 tons in a 24-hour period. It therefore requires a minimum detail of 48 men to unload and reload this ammunition in 24 hours. The service platoon cannot furnish this detail. It must be furnished from some other source.

■ 7. LOADING.—The rated capacity of military vehicles is to be exceeded only in cases of emergency. The driver is

responsible that his vehicle is not overloaded and that the load is properly distributed and lashed. With loads of heavy concentrated weight and little bulk there is a tendency to make overloading a standard practice; for example, the truck, 2½-ton, will carry 125 5-gallon drums of fuel on the floor of the body. This constitutes a 2½-ton load. Since this does not fill the available space within the truck body, there is an inclination on the part of the working detail to stack a second layer of drums upon the first, resulting in a 5-ton load. Only under exceptional circumstances, such as the exigencies of battle, should overloading be tolerated. Drivers are instructed that the maximum overload permitted is such that elliptical springs retain a part of their curve in the designed direction. (See FM 25-10.)

■ 8. FUNDAMENTALS OF EMPLOYMENT.—*a.* The discussion in this paragraph is limited to the supply battalion, less the division quartermaster platoon, service platoon, and division ammunition section. The mission of the supply battalion is the delivery of its cargo to the proper destination. To accomplish this mission quite often will require that this unit fight with the weapons organically assigned. *Such combat is, however, but a means to an end—the delivery of the load.* This mission therefore governs the training of the battalion and directly influences its employment. In modern warfare, armored units frequently operate against lines of communication and rear areas. The use of single vehicles to transport supplies within the combat zone will be exceptional. This is due to the difficulty of providing adequate protection to dispersed vehicles. The normal employment of the supply battalion will therefore be in convoys, varying in size depending on the supply mission. Though this is the normal method of employment, it is essential that all personnel be trained in reconnaissance, orientation, and map reading in order that supply vehicles may deliver their cargo. Dispersion of vehicles necessitated by the threat of aerial attack and night driving without lights often cause vehicles to become separated from the convoy. Under these adverse conditions, energetic control by the convoy commander and a high degree of march discipline are necessary to insure the delivery of all vehicle loads.

b. Relationship with division trains is covered in FM 17-10 and 17-55. When the supply battalion is operating as part of the division trains it will be guided by the fundamentals indicated in FM 17-55. Its mission of delivering supplies will often necessitate its operation, as a whole or in part, away from the immediate control and support of the division train headquarters. When so operating it must provide for its own security with its organic personnel and weapons. If additional security is needed, the train commander must attach combat elements. The supply battalion commander should call for such attachments.

c. For details of employment of convoys see FM 25-10.

SECTION II

TRAINING

■ 9. GENERAL.—The subject of training generally is covered in FM 21-5. Training of the supply battalion of the armored division is divided into three phases: basic, unit, and advanced.

a. *Basic training.*—The general guide for this phase is basic and technical training, all arms and services of the Mobilization Training Program. (See FM 25-10.)

b. *Unit training.*—Headquarters company uses the headquarters company, quartermaster battalion (armored) schedule of the Mobilization Training Program as a guide. The truck companies use the truck company, quartermaster battalion (armored) schedule. (See FM 25-10.)

c. *Advanced training.*—The objectives of the advanced training phase are—

(1) *Tactical.*—Comprehensive training in weapons (to include antitank and antiaircraft firing), security, camouflage, defense against chemicals, close defense measures, and practical application of map reading. This is combined with training in maintenance, marches, and bivouacs. (See FM 25-10 and 17-50.)

(2) *Mental.*—Preparation for the mental stress in campaign. This training includes special measures aimed at coolness under attack and resistance to confusing sounds and sights. High morale and esprit de corps are necessary factors of the determination to accomplish the mission.

(3) *Physical*.—Hardening and conditioning in preparation for a campaign. Calisthenics is a minor element of this phase. Walking, running, swimming, and participation in aggressive and energetic sports in which there are few restraining rules are important. Instruction in close-in fighting and the use of individual weapons is carried on. Officers participate in this program. (See FM 21-20.)

■ 10. SEQUENCE OF ADVANCED TRAINING.—In general, the tactical training of the supply battalion should proceed in the following sequence:

- a. Maintenance.
- b. Driving.
- c. Loads and loading.
- d. Marches and convoys.
- e. Bivouacs.
- f. Weapons.
- g. Defensive measures.
- h. Assembly.

■ 11. MAINTENANCE.—This subject is of prime importance as without efficient and adequate maintenance of vehicles the supply battalion will fail in its principal mission for it will be unable to deliver supplies. (See FM 25-10, 17-50, and applicable Technical Manuals.)

■ 12. DRIVING.—The ability of all individuals of the supply battalion to drive efficiently all vehicles assigned to the unit is of vital necessity. Casualties and absences should never impede the delivery of a load; therefore, all personnel must be capable of substituting for an absent driver. This instruction should follow chapter 2 and appendix II, FM 25-10, and progress to the thorough mastery of all vehicles in difficult operations. (See sec. III, ch. 4, FM 25-10.) Every effort will be exerted to develop in all personnel a pride in their ability to handle vehicles in the most efficient and effective manner and to develop in each assigned chauffeur a pride in the condition and performance of his vehicle.

■ 13. LOADS AND LOADING.—The principal load that the supply battalion will be required to carry will be ammunition. As this is a heavy, concentrated load, loading and transporting this type load should be frequently practiced. Drivers should

be trained to judge the weight of a load. This may be done by first weighing an empty vehicle, then weighing the same vehicle under different loads and noting the depression of the vehicle springs. Personnel should be cautioned in this to note evidences of spring fatigue which will cause changes in normal depression rates. Spring fatigue is indicated by the springs failing to return to their normal curvature when the vehicle is unloaded. Although ammunition loads are heavy and concentrated, practice should be given in loading and transporting bulky cargo which changes the center of gravity of the vehicle. Such loads require careful lashing and skillful handling of the vehicle to prevent the load from shifting. Instruction in loading of vehicles for rail or water movement should also be given. (See FM 25-10 and 101-10.)

■ 14. MARCHES AND CONVOYS.—This instruction is the culmination of individual training. Its aim is to develop a high degree of march discipline and march control. Standing operations procedure will be developed during this phase and frequently practiced so that the unit is prepared to move on short notice. (For details see sec. IV and FM 25-10.)

■ 15. BIVOUACS.—This phase should include training of reconnaissance parties capable of selecting the most favorable bivouac area, movement into and out of bivouac areas, concealment and defensive measures, and administrative procedure after bivouac is occupied. (See sec. IV.)

■ 16. WEAPONS.—The supply battalion is armed with the following types of weapons: carbine, pistol, submachine gun, caliber .30 machine gun, caliber .50 machine gun, and 37-mm antitank gun. The use of these weapons in train defense is by personnel who have some other primary duty. The fact that the use of these weapons is a secondary duty should not cause neglect or slight of this important training. All personnel must be trained in the operation of all weapons. Training in firing of all types of weapons assigned to the battalion must be given, subject to limitations imposed by ammunition allowances. (See applicable Field Manuals covering these weapons.)

■ 17. DEFENSE MEASURES.—This phase of training of the supply battalion is the development of its combat instruction.

The supply battalion fights only to accomplish its mission. It must, however, be thoroughly trained in defensive and offensive action to be able to accomplish the delivery of its load. This training should include security measures on the march and in bivouac, including protection from ground, air, and chemical attacks. The fundamentals given in FM 17-10 are applicable to the supply battalion as modified by available personnel and weapons. (See sec. V.)

■ 18. ASSEMBLY.—The failure of a transport unit to accomplish its mission can often be traced to lack of instruction in the reassembly of vehicles of the unit after they have been dispersed. Action by hostile forces and dispersion of vehicles necessitated in the delivery of loads to distant units result in temporary loss of control. It is therefore imperative that thorough training in the reassembly of squads, sections, platoons, and companies be given and that it become habitual for officers and noncommissioned officers to designate an assembly point and alternate assembly points. Frequent practice will be given in dispersion of vehicles and their reassembly at designated points at designated time. Practice should be given also in assembling at a point other than the one originally designated, the new point to be selected after initial dispersion of vehicles. The supply battalion commander or subordinate commander who is unable or slow to reassemble his vehicles will fail in his mission. By frequent practice in reassembly, every driver can be made to feel that his mission is accomplished *only* after the delivery of his load and *return to the designated assembly area*.

■ 19. TRAINING PUBLICATIONS AND AIDS.—Full use should be made of all applicable training publications, Training Films, and Film Strips listed in FM 21-6. Applicable training publications should be secured and utilized to their fullest extent.

SECTION III

CONTROL, ORDERS, LIAISON, AND RECONNAISSANCE

■ 20. CONTROL.—The supply battalion is a separate unit of the armored division. The division quartermaster's relations with the supply battalion are generally the same as his relations with a regiment or separate unit of the division. The

division quartermaster platoon, however, operates under the division quartermaster. Likewise, necessary details for the ration break-down are available to the division quartermaster from the service platoon of headquarters company. The truck loading of the supply battalion is controlled by G-4. The division quartermaster secures the approval of G-4 before utilizing these trucks. For training and tactical protection, the supply battalion operates under the division train commander. There will normally be a compromise between the considerations of tactical protection and effective execution of the mission of the supply battalion. The mission takes first priority. Protection takes second priority. (See FM 17-55.)

■ 21. **ORDERS.**—Orders will be delivered to the supply battalion through the train commander, since the latter is charged with protecting the battalion during execution of its mission. The train commander is not responsible for technical performance of duties of the supply battalion. The administrative order of the division, whether issued in complete or fragmentary form, will govern delivery of ammunition and use of trucks of the supply battalion. The ammunition officer on the staff of the division ordnance officer prepares details of the ammunition plan and submits this plan to G-4 for approval and for inclusion in administrative orders.

■ 22. **CHANNEL OF CONTROL.**—Based on directives from higher authority, the battalion commander will issue his orders, generally in fragmentary form, to units of the supply battalion. These orders are transmitted to the company commanders. When a platoon, section, or squad is to be dispatched on an independent mission, orders are delivered to the commander of the smaller unit through the parent company commander. If orders are given direct to a subordinate commander, the company commander must be informed of the mission of his subordinate unit and *when* and *where* his subordinate unit reverts to his control. Orders for individual vehicle movements are always transmitted to a company commander whose responsibility it is to select the vehicle for the mission and to issue the detailed instructions to the driver.

■ 23. **LIAISON.**—The supply battalion maintains a liaison officer with the division train commander's command post. Qualifications of liaison officers are covered in FM 101-5.

■ 24. **RECONNAISSANCE.**—*a.* An advance party is organized for the supply battalion, consisting of one officer from battalion headquarters and one officer or noncommissioned officer from each company. When a movement is expected, the advance party reports to the train headquarters command post or other place as directed and proceeds to the new area with the train reconnaissance officer. The latter assigns the area to be occupied by the supply battalion. The officer in charge of the advance party organizes the area, posts guides, places markers, and prepares for prompt and orderly occupation of the position. He makes a sketch showing assigned areas for units.

b. For details of route reconnaissance, route marking, posting of guides, and selection of alternate routes, see FM 25-10 and 17-55.

SECTION IV

MARCHES AND BIVOUACS

■ 25. **GENERAL.**—The subject of marches is covered in FM 17-50, FM 17-55, and FM 25-10. Much of the normal procedure in the conduct of marches and the occupation of bivouac areas will be covered in standing operating procedures (SOP) developed for the trains in each division by the train commander. March discipline, camouflage discipline, and general conduct depend upon the active supervision of the battalion commander and his subordinate officers.

■ 26. **PLANNING.**—Careful preparation and planning are required in order to start the march without confusion and to move into bivouac areas from the march without confusion and massing of vehicles. When the density of traffic permits, march units of about the size of a truck platoon are used. March units pass the initial point (IP) at a specified time interval or distance behind the last vehicle of the march unit ahead. The designated rate of march is maintained by the leading or guide vehicle. Excessive whip in the column is avoided by having each march unit commander lead his column at the designated rate while ignoring minor varia-

tions in the time interval or distance caused by the "accordion movement of the vehicles in the march unit ahead.

■ **27. MARCH DISCIPLINE.**—The drivers are instructed to keep their vehicles at all times on the right of the road. Turns to the right are made without blocking traffic in the road into which the turn is being made. Drivers are instructed in distance to be maintained between vehicles and the rate of march; changes in speed are made gradually in order to reduce the whip at the tail of the column. Attempts to maintain rigidly fixed distance between vehicles will result in undue fatigue to the drivers and added wear on motor vehicles. Minimum and maximum distances should be specified.

■ **28. BIVOUACS.**—*a.* Bivouac areas are reconnoitered prior to the arrival of the battalion by advance parties consisting of at least one officer per battalion and one noncommissioned officer per company, with such additional guides as practice proves necessary. (See par. 24.) Foresight is necessary in order to anticipate the points which will become "bottlenecks" during the occupation of the bivouac. Smooth entry into the area without jamming on the road and bunching the vehicles within the bivouac is one of the best indications of a well-trained, well-disciplined organization.

b. When the head of the march unit arrives in the area allotted to it by the officer in charge of the advance party, the noncommissioned officer from the advance party mounts the leading vehicle and quickly outlines the area to be occupied to the officer in charge of the march serial. The latter dismounts and supervises the movement of the vehicles into concealed positions. Energetic supervision will be required to prevent the tail of the column from blocking traffic on the main road. Vehicles must be moved off the road, into the area, and adjustments made later.

c. In leaving bivouac areas, drivers are trained to estimate distance from the vehicle ahead so that each vehicle can take up the prescribed march speed as soon as it reaches the road. In this way, jamming and halting on the road or bunching of trucks in the bivouac area is avoided.

■ **29. NIGHT OPERATIONS.**—*a.* A large part of supply operations will be accomplished under the cover of darkness. There-

fore, training should be conducted so as to overcome difficulties that will occur in this type of operation.

b. Careful planning is required for night operation. Truck groups are permitted to operate at reduced distances because of the lesser degree of vulnerability to air attack. Daylight reconnaissance will ordinarily precede night operation. Careful road marking is required in order to prevent vehicles from going astray.

c. Speeds during night driving are reduced considerably. Driving without lights is exhausting to personnel even on good roads. Careful map preparation and training are required in order that all personnel may have practice in orienting themselves. A good night driver should be detailed for each leading vehicle.

■ 30. MAP READING.—It is standard practice to furnish each driver with a map or sketch showing the route of march and destination. The sketch should be sufficiently accurate for the hull compass to assist the driver in orientation. Drivers should be required to note the odometer reading at the start and at readily identifiable terrain features. This practice is a simple type of dead reckoning which enables the driver to estimate fairly accurately his position at any time. Drivers must be skillful in the use of all types of maps, map substitutes, and aerial photographs. The map, compass, and instructions covering alternate destinations in the event the formation becomes scattered, will prevent the driver from becoming lost in difficult terrain such as deserts and jungles. A suggested form for training the driver to check his position is given below:

ROUTE INSTRUCTION

Check point	Bearing to next check point	Distance to next check point	Remarks
IP (CR586)	98°	3.6 miles	Leave city via S. Flores Street.
RJ 280	195°	5.7 miles	Pass schoolhouse on right at 4.6 miles.



FIGURE 3.--In open terrain, disperse vehicles. This unit is extremely vulnerable to air attack.



FIGURE 4.—In open terrain, disperse vehicles. There should be not less than 50 yards or preferably 100 yards between vehicles.



FIGURE 5.—Vehicles must not be halted and closed bumper to bumper. Men must not leave their antiaircraft defense weapons.



FIGURE 6.—Move vehicles off the road at halts.



FIGURE 7.—Do not move vehicles from concealed positions until time to move out in column.



FIGURE 8.—Reconnoiter exits and post guides.

SECTION V

SECURITY

■ 31. GENERAL.—The subject of security is covered generally in FM 100-5, 17-10, 17-50, and 17-55. Security in the supply battalion consists of measures taken against ground, air, and chemical attack.

■ 32. GROUND ATTACK.—*a.* The threat most to be feared by the truck columns of the armored division is attack by hostile mechanized elements. In bivouac area the defensive measures for the train as a whole will be controlled by the division train commander. The responsibility for local security, however, rests with the commanding officer of the supply battalion. Sentries are placed on each main road leading to the bivouac area and on the commanding terrain which has the routes of approach under observation. The distance of these outposts should be such that the commander will have freedom of action when the presence of mechanized elements is reported. Antitank guns not covering road blocks are grouped in the vicinity of the bivouac area so that they may be moved as defense against threatened attacks. (See FM 17-10.)

b. The supply battalion does not fight except when necessary to defend itself. Bivouac areas should not be made in the immediate vicinity of main roads and the troops should not disclose their position by unnecessarily engaging small raiding parties. Warning of the presence of raiding parties will be transmitted to the train commander.

■ 33. ANTI-AIRCRAFT.—Security against enemy aircraft is obtained by effective camouflage, camouflage discipline, and dispersion of vehicles. The troops should not fire at enemy aircraft until certain that the bivouac area has been discovered. Then all suitable weapons are employed against the aircraft. The battalion is furnished only defensive weapons. Its mission is supply, not combat. It fights only when defense is necessary. All vehicles and installations should be separated by 50 to 100 yards. (See FM 17-10.) Slit trenches habitually are dug for personnel in bivouac and for long halts.

■ 34. AGAINST CHEMICAL ATTACK.—Adequate security measures against ground attack and camouflage against aerial observation are measures of security against chemical attack. Gas sentinels equipped with adequate alarm devices are posted in the bivouac area. (See FM 17-10 and 21-40; for methods of decontamination of armored force vehicles, see FM 17-59.)

■ 35. ON THE MARCH.—*a.* Frequently, following an attack by the armored division, the supply battalion in delivering ammunition will traverse areas which have not been completely mopped up by the infantry. While the protection of the train is the responsibility of the train commander, this does not relieve the column commanders of the supply battalion from the responsibility of assuring security of their commands against surprise. Advance guards, flank guards, and rear guards, reinforced by antitank weapons and heavy machine guns assigned to the battalion, will often be necessary. The supply battalion does not hesitate to fight in order to accomplish its mission in delivering supplies. Boldness will take advantage of the confusion which follows attack of the tank elements.

b. Antiaircraft security on the march is secured by dispersion of trucks, by concealing the trucks off the side of the road at halts, and by night movement when practicable. Antiaircraft sentinels are posted to give warning of air attack.

c. Security against chemical attack during the march is coincidental with antiaircraft security and ground security. Ground security detachments warn the main body of contaminated areas while the antiaircraft sentinels warn against approach of hostile aircraft. Each member of the battalion habitually wears his gas mask at the alert position. When chemical attack is believed to be imminent, vehicle loads are protected as indicated in FM 17-59.

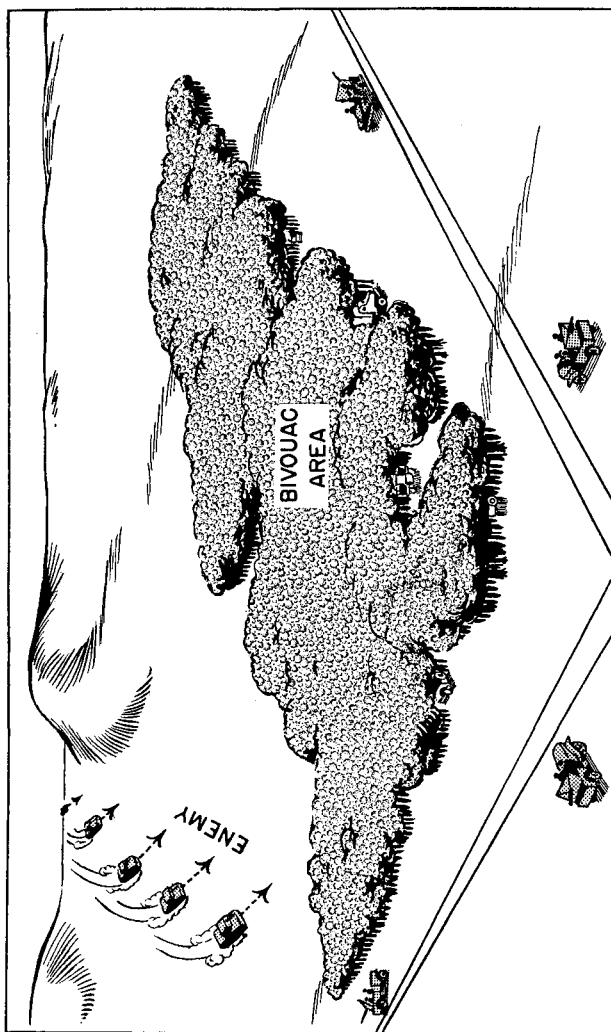


FIGURE 9.—Do *not* disperse antitank guns more than necessary to cover approaches. Do *not* post antitank guns in the open.

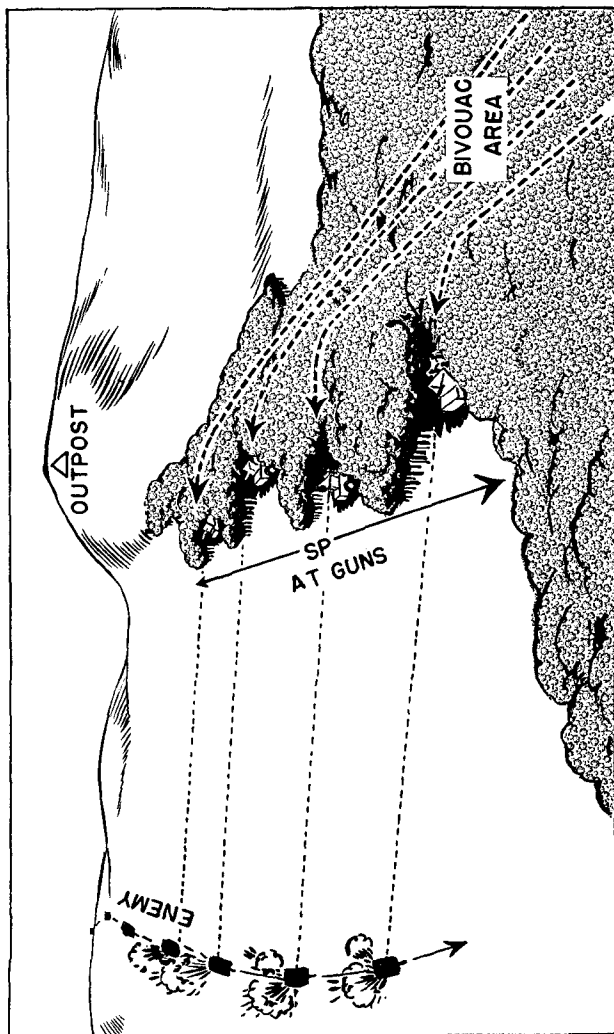


FIGURE 10.—Keep routes of approach under observation but use most of the antitank guns as a reserve.

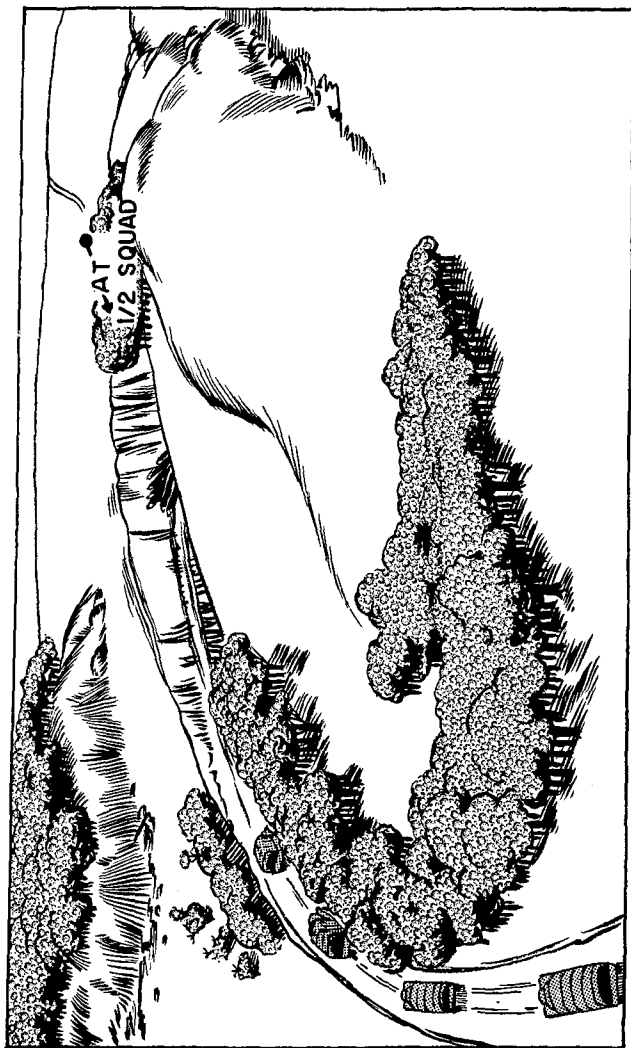


FIGURE 11.—Trucks coming to a road block should not detour but should go into concealed positions.

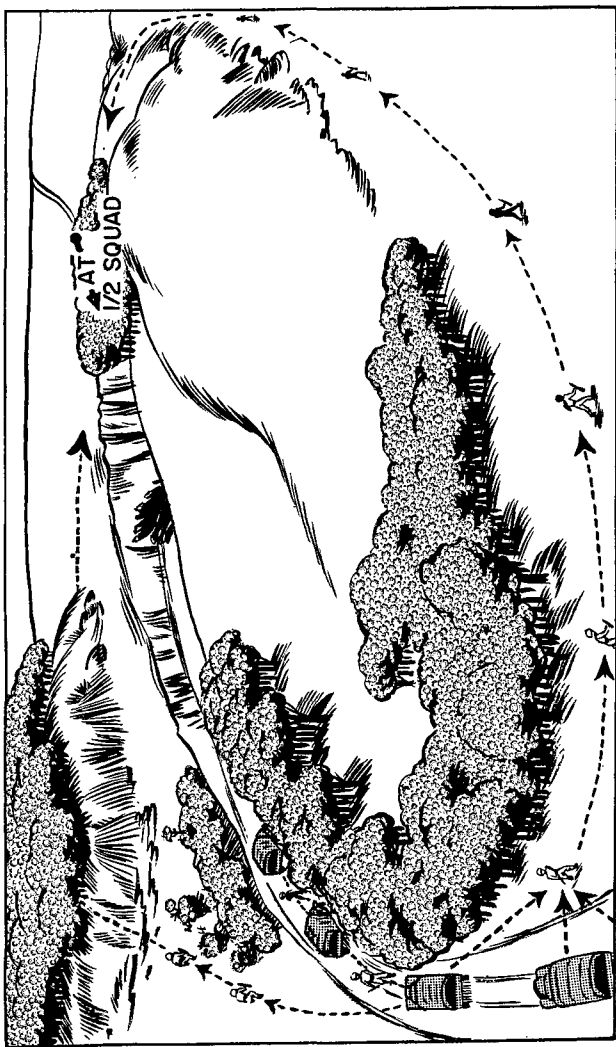


FIGURE 12.—Assistant drivers outflank the road block and reduce it.

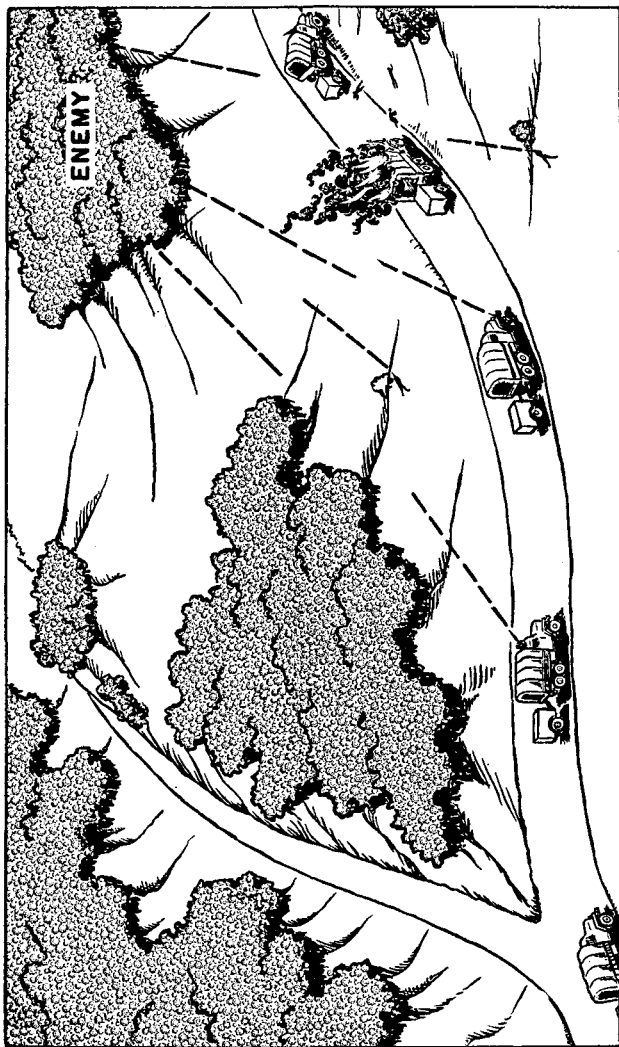


FIGURE 13.—This truck column was fired upon by an isolated group of enemy. Reconnaissance was poor.

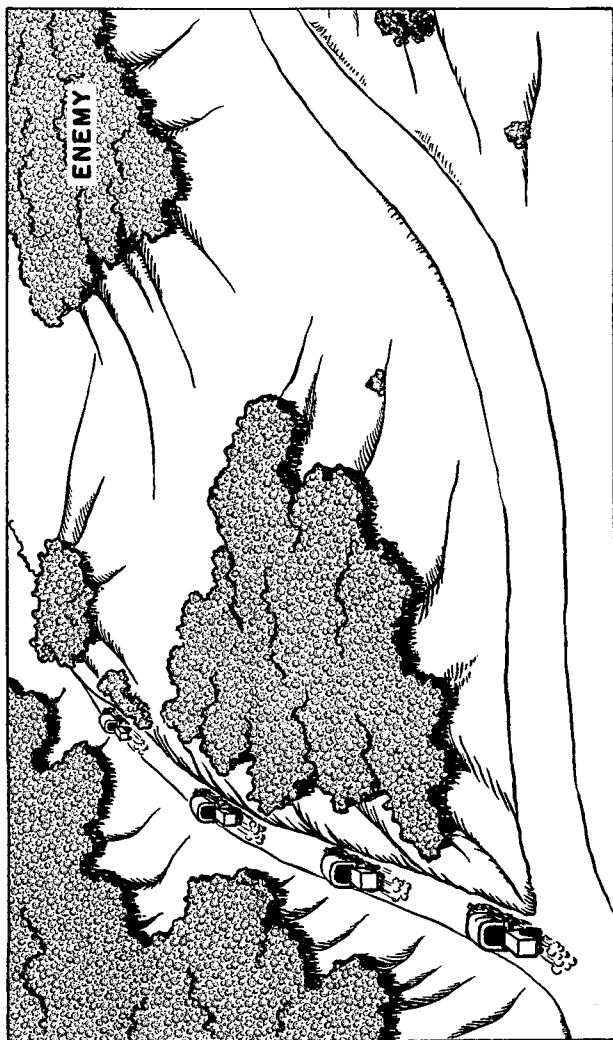


FIGURE 14.—Here reconnaissance found the enemy group in time for the convoy commander to avoid it.

INDEX

	Paragraphs	Page
Advance party (billeting)-----	28	14
Ammunition-----	1, 3, 5, 6	1, 6
Antiaircraft security-----	33	22
Antitank guns-----	3, 16, 32	1, 10, 22
Assembly-----	18	11
Bivouacs-----	15, 28	10
Cargo capacity-----	4	6
Chemical attack, security-----	34	23
Control-----	20, 22	11, 12
Convoys-----	14	10
Defense measures-----	17	10
Discipline, march-----	27	14
Division trains, relationship with-----	8	7
Driving-----	12	9
Employment, fundamentals-----	8	7
Headquarters company-----	3	1
Liaison-----	23	12
Loads-----	5, 6	6
Loading-----	7, 13	6, 9
Maintenance-----	3, 11	1, 9
Map reading-----	30	15
Marches:		
Discipline-----	27	14
General-----	25	13
Map reading-----	30	15
Night-----	29	14
Planning-----	26	13
Rate-----	26	13
Security-----	35	23
Training-----	14	10
Night operations-----	29	14
Orders-----	21	12
Outpost-----	32	22
Organization-----	3	1
Platoon, service-----	1, 3	1
Purpose-----	2	1
Quartermaster platoon-----	1, 3	1
Ration break-down-----	1	1
Reconnaissance-----	24, 28	13, 14
Scope-----	1	1

INDEX

	Paragraph	Page
Security:		
Antiaircraft	33	22
Antitank	32	22
Chemical	34	23
General	31	22
Ground attack, against	32	22
On march	35	23
Outpost	32	22
Service platoon	1, 3	1
Training:		
Advanced	9, 10	8, 9
Aids	19	11
Assembly	18	11
Basic	9	8
Bivouac	15	10
Convoys	14	10
Defensive measures	17	10
Driving	12	9
General	9	8
Loads and loading	13	9
Maintenance	11	9
Marches	14	10
Mental	9	8
Physical	9	8
Publications	19	11
Sequence	10	9
Unit	9	8
Weapons	16	10
Truck companies	3	1
Weapons	3, 16	1, 10

